# Bérénice **Batut**

Post-doctoral researcher · Bioinformatics & Training

*Magdalena-Gerber-Str, 2 · Freiburg · Germany*

 (+33) 6 74 92 67 47 | berenice.batut@gmail.com | research.bebatut.fr | bebatut | berenicebatut | @bebatut

## Education

**Doctor in science** | *Lyon, France*

Institut National des Sciences Appliquées | *Oct. 2011 - Nov. 2014*

- In silico experimental evolution
- Comparative genomics with phylogeny

**Master degree** | *Lyon, France*

Ecole Normale supérieure & University Claude Bernard | *Oct. 2010 - Oct. 2011*

- Theoretical computer science
- Complex system modelling

**Master of Engineering** | *Lyon, France*

Institut National des Sciences Appliquées | *Oct. 2018 - Oct. 2011*

- Bioinformatics and Modelling

## Skills

| | |
|---:|---|
| **Bioinformatics** | HTS data analysis (RNA-Seq, metagenomics), comparative microbial genomics, phylogenetics |
| **Software development** | Python, R |
| **Workflow management** | Galaxy, Snakemake |
| **Training** | Data analysis, Galaxy, Software development, Software Carpentry instructor |
| **Community** | Galaxy Traing community manager, Mozilla Open Leader, Software Carpentry mentor |

## Experience

**Post-doctoral researcher** | *Freiburg, Germany*

Galaxy Team, Backofen Lab, University of Freiburg | *Aug. 2016 - Today*

- Data analysis of High-Throughput sequencing data (RNA-seq, metagenomics, single-cell RNA-seq, etc)
- Training on Galaxy use, data analysis and software development
- Development and maintenance of the Training Material repository of the Galaxy Training Network
- Management of Galaxy Training community
- Member of the training group of de.NBI, the German Network for Bioinformatics infrastructure
- Development of command-line tools, tools for Galaxy, packages for BioConda
- Teaching to computer science master students

**Post-doctoral researcher** | *Clermont-Ferrand, France*

CIDAM, Université d'Auvergne | *Jan. 2015 - Jun. 2016*

- Development of metagenomics tools for Galaxy
- Data analysis of metagenomics data
- Teaching to bioinformatics undergrad students

**PhD student & researcher** | *Lyon, France*

Institut National des Sciences Appliquées | *Oct. 2011 - Nov. 2014*

- In silico experimental evolution
- Comparative genomics with phylogeny
- Teaching to bioinformatics undergrad students

## Extracurricular Activity

**Founder and Organizer** | *https://openlifesci.org/*

Open Life Science | *Sep. 2019 - Today*

- 15 week mentorship program and cohort-based training for Open Science Ambassadors

**Deputy training coordinator** |

ELIXIR Germany | *Feb. 2019 - Today*

**Founder and Manager**

STREET SCIENCE COMMUNITY *Nov. 2018 - Today*

- Outreach program for pupils, students and citizens
- Organization of workshops on molecular biology and data-analysis

**Mozilla Open Leader**

MOZILLA FOUNDATION *Sep. 2018 - Today*

- Mentoring
- 14 week leadership development program

**Mentor**

THE CARPENTRIES *Sep. 2018 - Sep, 2019*

- Mentoring on community building and material development

**Member**

TRAINING GROUP (SIG3) OF THE GERMAN NETWORK FOR BIOINFORMATICS INFRASTRUCTURE *Dec. 2016 - Today*

**Instructor**

THE CARPENTRIES *March. 2016 - Today*

- Training for foundational computational and data science skills to researchers
- Unix Shell, Version Control with Git, Plotting and Programming with Python and R

# Training & Teaching

The complete list of teaching and training can be found: http://research.bebatut.fr/training

## 2019

| | | |
|---|---|---|
| Oct. 19 | **RNA-seq workshop for beginners: from sequences to visualization using Galaxy and R**, 3 days workshop | *Online* |
| Jun. 19 | **Train the Galaxy Trainer, Metatranscriptomics analysis, and Open source project management**, 3 x 1.5 h workshops at the Galaxy Community Conference | *Freiburg, Germany* |
| Jun. 19 | **RNA-seq workshop for beginners: from sequences to visualization using Galaxy**, 2 days workshop | *Online* |
| Feb. 19 | **Galaxy data analysis (introduction, ChiP-seq, RNA-seq)**, 5 days workshop | *Freiburg, Germany* |
| Jan. 19 | **Galaxy RNA-seq data analysis**, 2 days workshop | *Belgrade, Serbia* |
| Oct. 18 - Feb. 19 | **Introduction to data-driven life science**, Lectures and exercises to computer science master students | *Freiburg, Germany* |

# Publications

The complete list of publications is available online: https://orcid.org/0000-0001-9852-1987

ASaiM: a Galaxy-based framework to analyze microbiota data
   Batut B al
   *GigaScience* (May 2018). Oxford University Press (OUP), 2018

Community-Driven Data Analysis Training for Biology
   Batut B al
   *Cell systems* (June 2018). 2018

ENASearch: A Python library for interacting with ENA's API
   Batut B,  Gruening B A
   *The Journal of Open Source Software* (2017). 2017

Environmental pollutant Benzo[a]Pyrene impacts the volatile metabolome and transcriptome of the human gut microbiota
   Defois C,  Ratel J,  Denis S,  Batut B al
   *Frontiers in Microbiology* 8.AUG (2017). 2017

Reductive genome evolution at both ends of the bacterial population size spectrum
   Batut B al
   *Nature Reviews Microbiology* 12.12 (2014) p. 841. Nature Publishing Group, 2014

In silico experimental evolution: a tool to test evolutionary scenarios
   Batut B al
   *BMC bioinformatics*, 2013